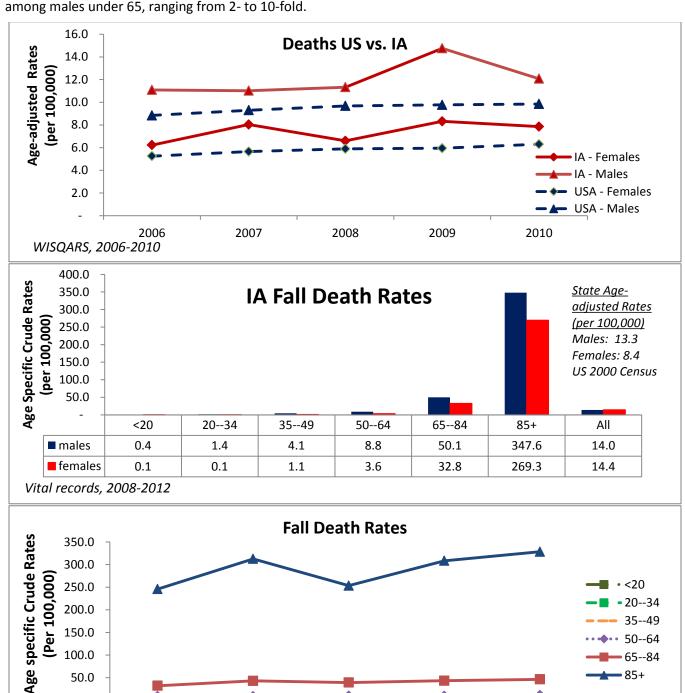
UNINTENTIONAL FALL INJURIES

- The 5-year (2008-2012) age-adjusted death rates due to unintentional falls in Iowa (9.4 per 100,000) were greater than the national average (7.8 per 100,000), (WISQARS, 2013 (CDC)). The rates (age-adjusted to the 2000 census) showed that Iowa males and females had higher risk than their US counterparts. While the rates were steadily increasing in the US, unintentional fall-related death rates were fluctuating in Iowa.
- In Iowa, 5-year average (2008-2012) unintentional fall death rates started increasing at 65 years of age and were highest among the 85 and older. Iowans over the age of 85 had 7 times the risk of dying from a fall than those ages 65 to 84. Across all age groups, males had a higher fall mortality rates than females. The mortality risk ratios were much higher among males under 65, ranging from 2- to 10-fold.



2010

2011

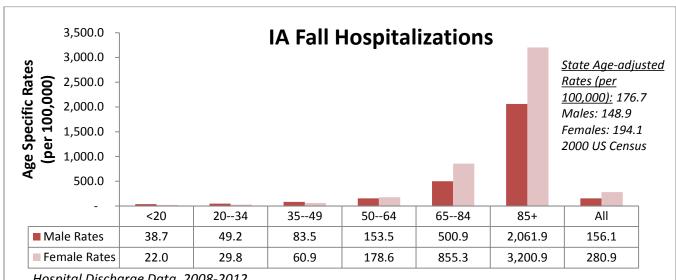
2012

2008

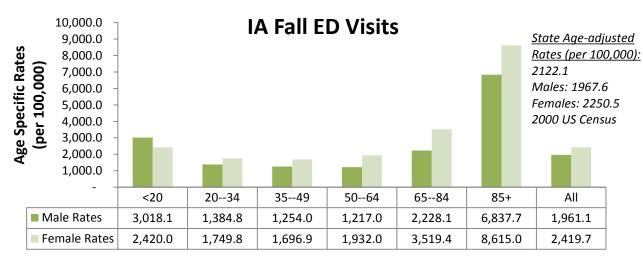
Vital records, 2008-2012

2009

- In lowa from 2008 to 2012, there were on average 17,500 hospitalizations (annual average increase of 400) and 260,000 emergency department visits (annual average increase 1,200) due to injuries every year. Unintentional Falls were the leading causes, representing 52% of all injury hospitalizations and 33% of all injury ED visits(True percent is reported as 26% and 21% of hospitalization and ED visit causes were undetermined).
- The percent of unintentional falls hospitalization was 61% among females compared to 30% among males. The percent with regards to ED visits was 40% for females and 24% for males.
- The rates of hospitalizations and ED visits were significantly higher in females across most age groups, particularly after the age of 50 compared to males; except for the younger ages (<50) for hospitalizations and (<20) for ED visits where the risks were respectively 60% and 25% higher for males.



Hospital Discharge Data, 2008-2012



Hospital Discharge Data, 2008-2012

- On average, from 2008-2012, there were 1,800 injury deaths per year (increased from 1,600; 2006-2010). Unintentional falls are the leading cause of injury related death (434 per year; increased from 375), supplanting Motor Vehicle Crashes (373 per year; decreased from 396-2006-2010). Compared to earlier 5-year averages (fact sheets 2006-2010); the number of unintentional fall deaths has increased 37%. There is a steady increase in the number of unintentional fall related deaths while MVC is decreasing. Falls remained the first leading cause of injury hospitalizations and ED visits with a respective magnitude of 6,700 and 66,824. The number of fall related hospitalizations has been stable while ED visits increased slightly.
- Using 2000 US census to adjust for the differences in age distribution by gender, the overall unintentional-fall death age adjusted rates were higher among males (13.3) than among females (8.4). Stratified by age the risk was differently distributed. Males had a higher death rate than females across all age groups. Among the 65 and older age groups, the risk ratio decreased with age from 44% (65-84) increased risk to 30% (85+) for males. Among the 50-64, males (8.8 per 100,000) had twice the risk compared to females (3.6). Among the 65-84, the male (50.1 per 100,000) risk decreased to 1.5 compared to females (32.8 per 100,000). Among the younger age groups, the number of deaths was smaller, ruling out any viable comparison.
- The overall unintentional fall hospitalizations age adjusted rates were greater among females (194 per 100,000 crude 280.1) than among males (148.9 per 100,000 crude 156.1), corresponding to an age-adjusted risk ratio of 1.30. The unintentional hospitalization rates were greater among females after the age of 50. The rate ratios comparing females versus males were 1.2 (178.6 vs.153.5) among the 50-64; 1.78 (855.3 vs.500.9) for the 65-84; and 1.6 for the 85 (3200.9 vs. 2061.9).
 - Among the younger than 50 age groups, the rates were higher in males. The rate ratios comparing males and females decreased with age. Among males younger than 20, the fall hospitalization rate was 80% higher than in females (38.7 vs. 22.0) while the ratio decreased to 40% among the 35-50.
- The overall emergency department visit rates were also higher among females than males with an age adjusted increased risk of 14% (2250.5 vs. 1967.6). The plot of ED visit rates across age groups followed a slanted U-shape with rate higher in the extreme. Stratified by gender, the ED visit rates were differently distributed across the age groups.
 - The unintentional ED visit rates were higher among females in all age strata except among teens. The highest risk ratios were manifest among the 50-64 old and the 65-84 age groups.
- The 2008-2012 updates demonstrate that unintentional falls are the leading cause of injury related deaths as well as hospitalizations and emergency department visits. The rates are increasing except for hospitalizations where the rates stayed constant.
- There are significant disparities associated with gender and age. Males seem to have more severe
 unintentional injuries, deaths and hospitalizations (specifically among teens) and females seem more likely to
 utilize ED services. And finally, it can be hypothesized that severity of injuries in sports and work-related
 activities may explain the inverse association of hospitalization and ED visits rates among males and females in
 the 20 and younger age groups.